REMARKS

The Office Action dated May 13, 2005 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto. Claims 51, 58, 59, and 82-84 have been amended to more particularly point out and distinctly claim the subject matter of the present invention. No new matter has been added.

Claims 49-84 are pending and under consideration.

CLAIM OBJECTIONS:

On page 2 of the Office Action, claims 51, 58 and 59 were objected to. In response, claims 51, 58, and 59 has been amended, as suggested in the Office Action, to resolve the objection. It is respectfully requested that the objection to the claims be withdrawn.

REJECTION UNDER 35 U.S.C. § 112:

In the Office Action, on page 2, claims 82-84 were rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In response, Applicants have made amendments to resolve the rejection by definitively pointing out and distinctly claiming the subject matter. It is respectfully requested the Examiner allow the amended claims 82-84.

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REJECTION UNDER 35 U.S.C. § 102:

In the Office Action, at page 3, claims 49-56, 59-61, 63-65, 67-68 and 73-84 were rejected under 35 U.S.C. § 102(b) as being anticipated by Averbuch et al. (5,530,693). The Office Action took the position regarding claims 49, 76, 77 and 80-82 that Averbuch discloses a method of transmitting packets of data in a communication network (figure 1) comprising at least first and third stations. This rejection is traversed and reconsideration is requested.

Independent claim 49, upon which claims 50-76 are dependent, recites a method of transmitting packets of data in a communication network is provided including at least first to third stations. The method includes providing data packets to only the first station and sending a first number of the data packets from the first station to a second station, and subsequently providing the data packets to both said first and third station when the second station has at least one predefined parameter with respect to said first and third station. The method further includes identifying via said second station which of the first number of the data packets are correctly received by the second station from the first station, and responsive to a signal from said second station, sending a second number of the data packets from the third station to said second station commencing with a data packet identified in said signal as being required after the last correctly received packet received from the first station.

Independent claim 77, upon which claims 78-81 are dependent, recites a system of transmitting packets of data in a communication network including first, second and third stations. The first station only is provided initially with data packets and is arranged to send a first number of the data packets to the second station. Subsequently the data packets are provided to both the first and third station when the second station has at least was predefined parameter with respect to the first and third station and wherein the second station is arranged to identify which of the first number of the data packets it receives from the first station. The third station is arranged to send a second number of the data packets to the second station in response to a signal from the second station commencing with the data packet identified in the signal as being required after the last correctly received packet from the first station.

Independent claim 82, upon which claims 83-84 are dependent, recites a node for a wireless communication network configured to send data packets to a base station for transmission to a mobile station. The node is configured to start sending the data packets for transmission to the mobile station both to a first base station and a second base station as a response to a predetermined condition.

As will be discussed below, Averbuch fails to disclose or suggest the elements of any of the presently pending claims.

The Office Action refers to a combination of column 4, lines 27-31 and column 7, line 53, of Averbuch as teaching or suggesting, "subsequently providing the data packets to both said first and third station when the second station has at least one predefined

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parameter with respect to said first and third station," as recited in independent claim 49. It is respectfully submitted that the referred portions of Averbuch do not teach or suggest the referred recitation of independent claim 49. Averbuch generally describes a base site controller (BSC) 103 duplicating a data packet and sending an original data packet 117 to a base site 105 currently serving the communication unit 109 and packet copies 119, 121 to all possible handoff base sites 106, 107. See column 4, lines 27-31. According to Averbuch, in a preferred embodiment, the BSC 103 sends packet copies to all base sites serving coverage areas that are adjacent to (i.e., neighbor) the serving base site's service coverage area 111. See column 4, lines 31-34. When a communication unit determines that the signal quality (e.g., BER) of the downlink signal from the serving base site is acceptable (i.e., is greater than or equal to a threshold value), the BSC does **not** instruct the serving base site **to handoff** the communication unit **to a target base site**. Emphasis added. See column 7, lines 52-58. In this case, the serving base site continues (409) transmitting the remaining portion of the data packet to the communication unit and the logic flow ends (411).

Assuming that, as indicated in the Office Action, the signal quality, BER, of Averbuch is the predefined parameter recited in independent claim 49, when it is determined that the BER of the downlink signal from the serving base site is acceptable, as provided in Averbuch, the BSC 103 will not be able to send the original data packet 117 to the base site 105 currently serving the communication unit 109 and to all possible handoff base sites 106. Clearly, Averbuch does not teach or suggest that when the BER

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is provided to a second station with respect to a first and third station, "subsequently providing the data packets to both said first and third station," as recited in independent claim 49 because, according to Averbuch, when the BER is acceptable, the BSC **does not** instruct the serving base site to handoff the communication unit to a target base site. Instead, in Averbuch the serving base site continues (409) transmitting the remaining portion of the data packet to the communication unit and the logic flow ends (411).

Averbuch does not relate to the timing of when to start copying packets to the target base site. Instead, Averbuch discusses the use of BER to control the timing of the hand-off from the serving base site to the target base site, i.e., when to switch from one base station to another for sending data to the mobile station. There is no teaching or suggestion in Averbuch of copying the data packets to the third station (e.g., the station to which the hand-off is made) once the receiving station (e.g., second station) has at least one predefined parameter with respect to the first and third stations. The BSC **does not** instruct the serving base site to handoff the communication unit to a target base site. Emphasis added. Instead, the serving base site continues (409) transmitting the remaining portion of the data packet to the communication unit and the logic flow ends (411).

In relation to copying of data packets to base sites other than the serving base site, Averbuch describes copying data packets to all base sites serving coverage areas that are adjacent to the serving base site's service coverage area, which teaches away from the present invention of "providing data packets to only the first station and sending a first

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number of the data packets from the first station to a second station; subsequently providing the data packets to both said first and third station when the second station has at least one predefined parameter with respect to said first and third station," as recited in independent claim 49.

Independent claim 77 recites, "subsequently the data packets are provided to both said first and third station when the second station has at least one predefined parameter with respect to said first and third station and wherein the second station is arranged to identify which of the first number of the data packets it receives from the first station." Independent claim 82 recites, "the node is configured to start sending the data packets both to a first base station and a second base station as a response to a predetermined condition for transmission to the mobile station."

Because independent claims 77 and 82 include similar claim features as those recited in independent claim 49, although of different scope, and because the Office Action refers to similar portions of the cited references to reject independent claims 77 and 82, the arguments presented above supporting the patentability of independent claim 49 are incorporated herein to support the patentability of independent claims 77 and 82.

In addition, the dependent claims include patentable subject matter. For instance, referring to dependent claims 52 and 53, Averbuch describes continuing to copy data packets to all non-serving base stations adjacent to the serving base station. It follows that after hand-off, data packets continue to be sent to the ex-serving base station so long as the new serving base station (to which the hand-off was made from the ex-serving base

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station) continues to be the new serving base station. In contrast, claims 52 and 53

provide that after the third station takes over from the first station as the serving station

(i.e. after said second number of data packets are sent from the third station to the second

station) there is a time when data packets are only sent to the third station. Specifically,

"subsequent to said step of sending a second number of data packets providing data

packets to only the third station," as recited in claim 52, and "providing data packets to

only the third station in response to said second station no longer having said at least one

predefined parameter with respect to said first and third stations," as recited in claim 53.

The recitations of claims 52 and 53 are not provided in Averbuch. Instead, Averbuch

describes continuing copying the data packets to the ex-serving base station for all the

time that said data packets are sent to mobile station via the new serving base station.

In view of the foregoing, it is respectfully requested that independent claims 1,

77, and 82 and related dependent claims be allowed.

REJECTION UNDER 35 U.S.C. § 103:

In the Office Action, at page 5, claim 66 is rejected under 35 U.S.C. § 103(a) as

being unpatentable over Averbuch et al. (5,530,693) in view of Rhee (6,104,757). The

Office Action took the position that a well known feature to someone of ordinary skill in

the art is if the second station does not correctly receive a data packet, the second station

requests retransmission of the data packet and, as taught by Rhee in the system of

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Averbuch, request transmission in order to guarantee the quality of the communication.
This rejection is traversed and reconsideration is requested.

As will be discussed below, Averbuch and Rhee fail to disclose or suggest the elements of any of the presently pending claims.

Dependent claim 66 depends from independent claim 49. Dependent claim 66 recites the additional feature of "wherein if said second station does not correctly receive a data packet, said second station requests retransmission of said data packet." Because Averbuch and Rhee must teach, individually or combined, all the recitations of the base claim and any intervening claims of dependent claim 66, the arguments presented above supporting the patentability of independent claim 49 over Averbuch are incorporated herein.

Rhee generally describes a retransmission-based error control technique that does not incur any additional latency in frame playout times and is suitable for interactive video applications. This retransmission technique combined with layered video coding yields good error resilience for interactive video conferencing. The technique exploits the temporal dependency of inter-coded frames and can be easily incorporated into motion-compensation based coding standards such as MPEG and H.261, achieving very good compression efficiency. However, Rhee does not cure the deficiencies of Averbuch. Similarly to Averbuch, Rhee is silent as to teaching or suggesting, "providing data packets to only the first station and sending a first number of the data packets from the first station to a second station; subsequently providing the data packets to both said

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first and third station when the second station has at least one predefined parameter with respect to said first and third station," as recited in independent claim 49. Rhee does not contemplate providing data packets to both a first and third station when a second station has a predefined parameter as recited in the present invention. Averbuch and Rhee, individually or combined, fail to teach or suggest all the recitations of independent claim 49.

Accordingly, it is respectfully requested that independent claim 49 and related dependent claim 66 be allowed.

In the Office Action at page 5, claims 69-72, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Averbuch et al. (5,530,693) in view of Abu-Amara et al. (6,173,183). The Office Action took the position that a mobile system that comprises a plurality of BSCs connected to a plurality of BSs is well known and is a standard in the art. This rejection is traversed and reconsideration is requested.

As will be discussed below, Averbuch and Abu-Amara fail to disclose or suggest the elements of any of the presently pending claims.

Dependent claim 69-72 depend from independent claim 49. Because Averbuch and Abu-Amara must teach, individually or combined, all the recitations of the base claim and any intervening claims of dependent claims 69-72, the arguments presented above supporting the patentability of independent claim 49 over Averbuch are incorporated herein.

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Abu-Amara generally describes a soft hand-off of a radiotelephone from one cellular system, the source cellular system, to another cellular system, the target cellular system. Each cellular system is comprised of a mobile switching center, a base station controller, and a number of base transceiver systems. Each base station controller is comprised of a router and a number of vocoders. To facilitate a soft hand-off between two BTSs (225 and 270), Abu-Amara describes that it is important to be able to route the signal received by an entity, such as the source vocoder (264), from the source MSC (210) to the two BTSs (225 and 270). Similarly, according to Abu-Amara, it is important to be able to route the signal sent by the radiotelephone (280) and received by the two BTSs (225 and 255) to the same vocoder, such as vocoder (264). See column 5, lines 8-19.

However, Abu-Amara does not cure the deficiencies of Averbuch. Similarly to Averbuch, Abu-Amara is silent as to teaching or suggesting, "providing data packets to only the first station and sending a first number of the data packets from the first station to a second station; subsequently providing the data packets to both said first and third station when the second station has at least one predefined parameter with respect to said first and third station," as recited in independent claim 49. Abu-Amara does not contemplate providing data packets to both a first and third station when a second station has a predefined parameter as recited in the present invention. Thus, Averbuch and Abu-Amara, individually or combined, fail to teach or suggest all the recitations of independent claim 49.

Accordingly, it is respectfully requested that independent claim 49 and related dependent claims 69-72 be allowed.

In the Office Action at page 6, claims 57 and 58 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Averbuch et al. (5,530,693) in view of Yuen (5,864,578). The Office Action took the position that Averbuch and Yuen describe all the recitations of claims 57 and 58. This rejection is traversed and reconsideration is requested.

As will be discussed below, Averbuch and Yuen fail to disclose or suggest the elements of any of the presently pending claims.

Dependent claims 57 and 58 depend from independent claim 49. Dependent claim 57 recites the additional feature of "wherein said signal parameter is the power level of a signal received at the second station from at least one of said first and third stations," and dependent claim 58 recites, "wherein said signal parameter is the ratio of power level of signals received at that the second station from the first and third stations." Because Averbuch and Yuen must teach, individually or combined, all the recitations of the base claim and any intervening claims of dependent claims 57 and 58, the arguments presented above supporting the patentability of independent claim 49 over Averbuch are incorporated herein.

Yuen generally describes monitoring a first signal quality of a first received-spread-spectrum signal transmitted from a first base station 61. See column 20, lines 46-

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67, and column 21, lines 1-7. A monitoring at an output of a matched filter is for determining how well the signal is being received from the first base station 61, in order to ultimately make a decision as to whether to initiate a handoff. However, Yuen does not cure the deficiencies of Averbuch. Similarly to Averbuch, Yuen is silent as to teaching or suggesting, "providing data packets to only the first station and sending a first number of the data packets from the first station to a second station," as recited in independent claim 49. Yuen and Averbuch, individually or combined, fail to teach or suggest all the recitations of independent claim 49.

Accordingly, it is respectfully requested that independent claim 49 and related dependent claims 57 and 58 be allowed.

In the Office Action at page 6, claim 62 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Averbuch et al. (5,530,693) in view of Corbett (6,438,116). The Office Action took the position that Averbuch and Corbett describe all the recitations of claim 62. This rejection is traversed and reconsideration is requested.

As will be discussed below, Averbuch and Corbett fail to disclose or suggest the elements of any of the presently pending claims.

Dependent claim 62 depends from independent claim 49. Dependent claim 62 recites the additional feature of "wherein said parameter is averaged over time before it is determined if said criteria is satisfied." Because Averbuch and Corbett must teach, individually or combined, all the recitations of the base claim and any intervening claims

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of dependent claim 62, the arguments presented above supporting the patentability of independent claim 49 over Averbuch are incorporated herein.

Corbett generally describes regulating transmit power level for a mobile station following a hard handoff in a code division multiple access (CDMA) based system. See column 3, lines 21-40. Samples are obtained for the system controller to keep a first-in-last-out (FILO) type running buffer. See column 4, lines 39-56. However, Corbett does not cure the deficiencies of Averbuch. Similarly to Averbuch, Corbett is silent as to teaching or suggesting, "providing data packets to only the first station and sending a first number of the data packets from the first station to a second station," as recited in independent claim 49. Corbett and Averbuch, individually or combined, fail to teach or suggest all the recitations of independent claim 49.

Accordingly, it is respectfully requested that independent claim 49 and related dependent claim 62 be allowed.

CONCLUSION:

In view of the above, applicant respectfully submits that the claimed invention recites subject matter which is neither disclosed nor suggested in the cited prior art. Applicants further submit that the subject matter is more than sufficient to render the claimed invention unobvious to a person of skill in the art. Applicants therefore respectfully request that each of claims 49-84.

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If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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